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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,393	03/30/2004	Stan E. Abrams	3368-Z	1744
7590	05/02/2005		EXAMINER	
Law Office of Jim Zegeer Suite 108 801 North Pitt Street Alexandria, VA 22314			RINEHART, KENNETH	
			ART UNIT	PAPER NUMBER
			3749	

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/812,393	ABRAMS ET AL.
Examiner	Art Unit	
Kenneth B Rinehart	3749	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 03 March 2004.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 1-3 and 5 is/are allowed.

6)  Claim(s) 4 and 6-8 is/are rejected.

7)  Claim(s) 9 and 10 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 30 March 2004 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/1/04.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: Claim 4 refers to addition which does not appear to be connected to anything.

Claim 4 recites the limitation "addition" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Nielson (4,829,911).

Nielson shows feeding said biomass into a combustion chamber through an airlock and supplying oxygen and a nitrogen-free diluent to said biomass to control the combustion process

in said combustion chamber (gas lock, steam, oxygen, fig. 1).

Claims 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Slyke (3,977,844). Van Slyke shows feeding said biomass into a combustion chamber through an airlock and supplying oxygen and a nitrogen-free diluent to said biomass to control the combustion process in said combustion chamber, said nitrogen free diluent gas is selected from carbon dioxide and argon and mixtures thereof (18, figure, column 2, lines 61-63; column 3, lines 35-38, column 4, lines 6-8).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hand et al (5,284,103) in view of Morhard et al (5,207,176) and Voss (4,385,567). Hand et al discloses a first burner stage having a first traveling conveyor firebelt with a first oxygen-introducing means for introducing a metered amount of oxygen in progressively increasing proportions along the lengths of said first traveling conveyor (54a, fig. 1, The apparatus is presently capable of performing this function. col. 3 lines 15-20), at least one additional burner stage having at least one additional traveling conveyor firebelt with a second oxygen introducing means for introducing oxygen in progressively decreasing amounts along the length of said further traveling conveyor firebelt (54b, fig. 1), a steam boiler connected to said gasification chamber for receiving gaseous products resulting from the combustion of said solid fuel (col. 4, line 14),

means for introducing oxygen into said boiler for converting the thermal energy to steam (76, fig. 6). Hand et al discloses applicant's invention substantially as claimed with the exception of a first chamber having an airlock infeed for feeding a metered amount of solid fuel thereto, a cyclone and baghouse for particulate collection and a scrubber for removing noxious gaseous from the exhaust stream. Morhard teaches a cyclone and baghouse for particulate collection and a scrubber for removing noxious gaseous from the exhaust stream (140, 150, fig. 1) for the purpose of elimination pollutants from the flue emissions. It would have been obvious to one of ordinary skill in the art to modify Hand by including a cyclone and baghouse for particulate collection and a scrubber for removing noxious gaseous from the exhaust stream as taught by Morhard et al for the purpose of reducing pollutants so that environmental emissions standards are met. Hand in view of Morhard discloses applicant's invention substantially as claimed with the exception of a first chamber having an airlock infeed for feeding a metered amount of solid fuel thereto. Voss teaches a first chamber having an airlock infeed for feeding a metered amount of solid fuel thereto (42, fig. 5) for the purpose of improving control over the combustion process. It would have been obvious to one of ordinary skill in the art to modify Hand et al by including a first chamber having an airlock infeed for feeding a metered amount of solid fuel thereto so that control over the combustion process is improved and the apparatus is thus made more efficient.

*Allowable Subject Matter*

Claims 1-3, 5 are allowed.

Claims 8-10 are objected to as being dependent upon a rejected base claim; but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B Rinehart whose telephone number is 571-272-4881. The examiner can normally be reached on 7:20 -4:20.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus can be reached on 571-272-4881. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kbr

*K. B. R.*  
KENNETH RINEHART  
PRIMARY EXAMINER